

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(10) International Publication Number
WO 2017/112777 A1

(43) International Publication Date
29 June 2017 (29.06.2017)

(51) International Patent Classification:

C07D 471/04 (2006.01) *C07D 413/14* (2006.01)
C07D 473/30 (2006.01) *C07D 221/04* (2006.01)
C07D 495/04 (2006.01) *C07D 401/04* (2006.01)
C07D 495/14 (2006.01) *C07D 401/12* (2006.01)
A61K 31/519 (2006.01) *C07D 407/14* (2006.01)
A61P 35/00 (2006.01) *C07D 409/14* (2006.01)
A61P 29/00 (2006.01) *C07D 239/94* (2006.01)
C07D 401/14 (2006.01)

(21) International Application Number:

PCT/US2016/068032

(22) International Filing Date:

21 December 2016 (21.12.2016)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/271,185 22 December 2015 (22.12.2015) US

(71) Applicant: **SHY THERAPEUTICS LLC** [US/US]; 34
Bates Road, Harrison, NY 10528 (US).

(72) Inventors: **HADARI, Yaron, R.**; 34 Bates Road, Harrison,
NY 10528 (US). **CARTA, Luca**; 263 Pleasant Avenue,
#5C, New York, NY 10029 (US). **SCHMERTZLER, Michael**;
1300 Valley Road, New Canaan, CT 06840 (US). **WILLIAMS, Theresa, M.**; 260 Shady Nook Road, Har-
leysville, PA 19438 (US). **REYNOLDS, Charles, H.**; 171
Forest Trail Drive, Lansdale, PA 19446 (US).

(74) Agents: **RIEGER, Dale, L.** et al.; Jones Day, 250 Vesey
Street, New York, NY 10281-1047 (US).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KH, KN,
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA,
MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG,
NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS,
RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY,
TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ,
TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU,
TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))*



WO 2017/112777 A1

(54) Title: COMPOUNDS FOR THE TREATMENT OF CANCER AND INFLAMMATORY DISEASE

(57) Abstract: Provided herein are compounds that inhibit the phosphorylation of MAPK and thus are compositions and methods for treating cancer and inflammatory disease.